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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,743	01/10/2002	Scott James Weaver	9288 (3225-130)	3989
26884 7590 08/20/2008 PAUL W. MARTIN NCR CORPORATION, LAW DEPT. 1700 S. PATTERSON BLVD. DAYTON, OH 45479-0001			EXAMINER VU, TUAN A	
			ART UNIT 2193	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/041,743

**Applicant(s)**

WEAVER, SCOTT JAMES

**Examiner**

TUAN A. VU

**Art Unit**

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to the Applicant's response filed 7/01/08.

As indicated in Applicant's response, claims 17-20, 23-27, 29, 31-32 have been amended.

Claims 17-33 are pending in the office action.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 17-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claim 17 and 25 recites 'creating a third model ... in a data wedge by integrating the first schema and the second schema into a data wedge'; and according to using a data wedge instantiating a model data, represented as a tree visible to a respective user based on the user's schema individually submitted by the respective user, it is not recognized from the Specifications that a act of integrating 2 schemas takes place to yield a third model as recited. The tree view instance (see Specifications: Fig. 1, para 0023,pg 6) to correspond to each user schema (data view A, view B) clearly describes that W3C content of schema is converted into a separate view visible to the respective user (see Specifications: own data model – para 0027, pg. 8; separate views – para –30, pg. 8; para 0033, pg. 9) according to his/her own provision of a

model (schema A, schema B – Fig. 1). Thus, schema model A and schema model B are not deemed integrated into a view that have integrated content (emphasis added) of the 2 models.

The *third model* being a result of an integration - integrating schema A **and** schema B - is deemed not in possession of the Inventor when the invention was made. One cannot make use of the so-recited integration step (to form a third model), when there is no clear enabling for this step. The limitation as to integrate 2 schemas into a third model, as identified above, will be given no true patentable weight but will be treated as though the schemas are inputs into the data wedge framework and converted in some organized data hierarchy visible to the respective user.

4. Likewise, claims 17, and 25 fail to comply with the written description requirement. Specifically, claims 17 and 25 recite: ‘creating a first schema ... ; creating a second schema ...’. According to the Specifications, the data wedge receives schemas from users (see schema A, B - Fig. 1) and there is not a description therein that explicitly mentions about (the method/system being claimed as) a software capability to create the schema A or B as mentioned above. The inventor is not deemed in possession of a capability (with respect to the context of claims 17, 25) to create schemas prior to submitting these schemas into the data wedge environment, simply because schemas coming from (or generated by) users cannot be construed as work being done by the invention. The *creating* a first schema and second schema as identified above will be treated as receiving schema representing model associated with that schema.

Claims 18-24, 26-31 do not remedy to the above lack of support from the Disclosure, hence will be rejected for lack of proper description.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 17, 19, 21-25, 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Worden, USPubN: 2003/0149934 (hereinafter Worden).

**As per claim 17**, Worden discloses a computer-implemented method of storing and translating data between a format of a first data model of a first software component and a format of a second data model of a second software component, the method comprising:

creating a first schema comprising the first data model of the first software component;  
creating a second schema comprising the second data model of the second software component ( Schema (1) Schema (2) – Fig. 9 Note: receiving schema reads on schemas being created by the sender – refer to USC 112, 1st para Rejection);

creating a third data model and a data storage in a data wedge by integrating the first schema and the second schema into the data wedge (see Fig. 9 - Note: using XMulator to map model to XML for 2 intended languages reads on first and second integration of respective model schema into the wedge or third model – see para 0029-0035, pg. 2-3; stored ... intermediate file - para 0038, 0040 - pg. 3);

receiving a data element in the format of the first data model of the first software component, translating the data element from the format of the first data model of the first

software component to the format of the third data model in the data wedge and storing the translated data element in the data storage, by the data wedge (e.g. para 0038, 0040 pg. 3; para 0063, pg. 5); and

retrieving the data element from the data storage and translating the data element into the format of the second data model of the second software component by the data wedge ( e.g. *language 1, language 2* – para 0034-0035, pg. 3; *a new XML comes along ... adapted for the new language* - para 0070, pg. 5; para 0039, pg. 3) after receiving a request for the data element from the second software component.

**As per claim 19**, Worden discloses reading the data element translated into the format of the second data model by the second software component (e.g. *converts from class model back to language 2* – para 0035, pg. 3; para 0039, pg. 3).

**As per claims 21-22**, Worden discloses creating an instance of the data wedge ( e.g. Fig. 12 – Note: each session per application or agent with login reads on instance) ; wherein the first and second schemas further comprise a name of the data wedge (e.g. XMulator Ltd 2000, Fig. 12).

**As per claim 23**, Worden discloses wherein integrating the first schema into the data wedge includes setting default data elements and data values for the first data model (e.g. *empty map tree ... basic tree* – para 0473, pg. 25 – Note: basic tree reads on default value for first data model; para 0085-0094, pg. 6; Fig. 17, 20-23 – Note: purchase model to be implemented with W3C template form of a extensible language **reads on** W3C/XML basic format having default and values to be extended with associations or relations from a UML, during the session wherein first software component data are integrated into the XMulator) of the first software component.

**As per claim 24**, Worden discloses retrieving the data element from the data storage (*database* - para 0436-0439, pg. 24) and translating the data element from the format of the third data model to the format of the first data model of the first software component by the data wedge (e.g. para 0028-0029, pg. 2; para 0037, pg. 3) after receiving a request for the data element from the first software component (e.g. bridge between meaning and structure ... for each XML language he uses, language designer – para 0061, 0063pg. 5 – Note: language designer submitting his XML-based design in order to obtain model structure and mappings **reads on** data wedge transforming XML into model mappings upon developer request – see *takes as an input a document ... such as DOM ... answering the query* – para 0044, pg. 4).

**As per claim 25**, Worden discloses a computer system for translating data between a format of a first data model of a first software component and a format of a second data model of a second software component (e.g. para 0034, 0035, 0039, pg. 3), the system comprising: a processor; and a memory coupled to said processor, the memory having stored therein data and sequences of instructions which, when executed by said processor, cause said processor to:

create a first schema comprising the first data model of the first software component; create a second schema comprising the second data model of the second software component (refer to claim 1);

create a third data model and a data storage in a data wedge by integrating the first schema and the second schema into the data wedge (refer to claim 1);

receive a data element in the format of the first data model of the first software component, translate the data element from the format of the first data model of the first software

component to a format of the third data model in the data wedge and store the translated data element in the data storage (refer to claim 1); and

retrieve the data element from the data storage and translate the data element into the format of the second data model of the second software component after receiving a request for the data element from the second software component (refer to claim 1).

**As per claim 28**, refer to claim 21.

**As per claim 29**, refer to claim 24

**As per claim 30**, refer to claim 22.

**As per claim 31**, refer to claim 23.

**As per claim 32**, Worden discloses a computer system for translating data between a format of a data model of a first software component and a format of a data model of a second software component (refer to claim 25), the system comprising:

a processor; and a memory coupled to said processor, wherein said processor is configured to execute a sequence of instructions contained in said memory, the instructions comprising

a data wedge (e.g. XMulator - Fig. 12, 14-71) including a first schema of the first software component and a second schema of the second software component (XML ... first language ... second language – para 0033-0035, 0039, pg. 3),

the data wedge configured to translate a data element from the format of the data model of the first software component in accordance with the first schema to a data model of the data wedge (para 0038, 0040 pg. 3; para 0063, pg. 5; *first XML based language .. XML logical structures ... information model* – para 0039, pg. 3) and



when a request is received from the second software component, translate the data element from the format of the data model of the data wedge to the format of the data model of the second software component in accordance with the second schema (e.g. *language 1, language 2* – para 0034-0035, pg. 3; *a new XML comes along ... adapted for the new language* - para 0070, pg. 5; para 0039, pg. 3).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18, 20, 26-27, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worden, USPubN: 2003/0149934.

**As per claim 18**, Worden does not explicitly disclose triggering an event to notify the second software component of the availability of the data element received from the first software component and stored in the data wedge. Worden disclosed GUI interface to return mapping results to user, making it visible to all users (see Fig. 31, 74, 75, 78-80 – Note: Gui depicting mapping returns **read on** event visible to users; *data source ... visible to all users* – Fig. 74 ;Fig. 32-35; Fig. 38-52). Based on Gui events and notification of results made available to all users, the concept that another user (pertinent to second software component) being informed from availability of mappings results from processing XML source based on database queries is disclosed. It would have been obvious for one skill in the art at the time the invention

was made to implement the Gui interface by Worden, so that notification of available mappings from a first software component (or first user) would be implemented by as trigger in the GUI by Worden, thereby enabling immediate information availability to other user (second software component) as suggested above, for enabling users pertinent to the second software component to make use of the mappings and incorporate its into their application in another language (see para 0035, pg. 3; *sets of mappings ... document in the first XML based language ... to be translated ... to a document in the second XML based language ... for the two languages* – para 0039, pg. 3).

**As per claim 20**, Worden does not explicitly disclose: removing an obsolete data element from the first data model of the first software component and causing the data wedge to remove the translated data element from the third data model. However Worden discloses agent and user paradigm wherein the XMulator provides MDL, XML-to-XML mappings as displayed results; and transformation into XSLT to return to the user of the second software component using the XMulator tool (see para 0260 to para 0264 – pg 14-15; Fig. 9; Fig. 54-56; para 0842-0858, pg. 37-38) including removing of mappings data ( see *delete* button – Fig. 29-31; para 0564, pg. 29; para 0720, pg. 34). It would have been obvious for one skill in the art at the time the invention was made to implement the agent and the XMulator interface in Worden so that in the (third model) mappings interface, the Gui-implemented delete/remove function would be for removing a XML component mappings as in removing of an obsolete data element in the XML of the first software component using the wedge created third model as set forth in the mappings displayed above, to enhance correctness of the model with more updated mappings.

**As per claims 26-27**, refer to the rationale of claims 18, 20.

**As per claim 33**, refer to the rationale as set forth in claim 18.

***Response to Arguments***

9. Applicant's arguments filed 7/01/08 have been fully considered but they are not persuasive. Following are the Examiner's observation in regard thereto.

**USC § 102 Rejection:**

(A) Applicants have submitted that Worden does not teach 'creating a third model and a data storage ... by integrating ... first schema ... second schema', now as required. The above limitation has been analyzed for its merits and addressed in accordance with the analysis in terms of the USC 112 Rejection, i.e. no weight given to the step of integrating of 2 model schema to yield a third model.

(B) The claims as amended have been given readjusted analysis and interpretation, and as a result, a modified ground of rejection (§ 102 and 103 type) has been necessitated as herein effectuated. No allowable subject matter has been isolated.

The claims will stand rejected as set forth in the Office Action.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before

using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

August 17, 2008.